Globalstar to develop new, industry-specific hardware and to remain abreast of the latest technological advances in the mobile telecommunications industry.

A. ATC Authority Will Enable Globalstar to Overcome its Service's Poor Signal Reception Indoors and in Urban Canyons, Which Substantially Will Increase Globalstar's Subscribership Among Suburban and Urban Americans

As noted by the Commission in its NPRM, by New ICO Global Communications (Holdings) Ltd. ("New ICO") in its initial request for ATC authority, and by Motient Services, Inc. ("Motient") in its space station modification application, MSS systems are plagued by signal reception problems indoors and in urban canyons due to the low power of their satellite transmissions at the Earth's surface.[30] Although the Bondholders believe that Globalstar's urban reception is superior to other MSS providers,[31] Globalstar's service also suffers from these

[30] See NPRM, ¶ 24 (recounting the poor indoor and urban reception of MSS services asserted by New ICO and Motient and requesting comment on the same); Ex Parte Letter from New ICO to Chairman Powell (March 8, 2001), at 5 ("The woes of the MSS industry can largely be traced to problem with signal coverage. First and foremost, MSS handsets generally do not work indoors, and generally are unable to receive signals in urban 'canyons.'") ("New ICO Ex Parte"); Application for Modification of Space Station Licenses filed by Mobile Satellite Ventures Subsidiary LLC, FCC File No. SAT-ASG-20010302-00017, Call Signs E980179, E9900133, at 12-13 (filed March 2, 2001) (noting that one of the primary impediments to "the realization of Motient's original vision" is "the inability of a satellite-only system to provide high-quality service in urban areas"). Iridium experienced the same problems with its MSS service. See, e.g., Joseph C. Anselmo, Iridium's Future Up in the Air, AVIATION WEEK & SPACE TECHNOLOGY, Aug. 23, 1999 ("The customer base of well-heeled business travelers that Iridium had counted on never materialized--in part because of the inconvenience of carrying a brick-sized telephone that can't receive satellite signals indoors."); Mark Leibovich, A Dream Come Back to Earth: Missteps, Shortfalls, Glitches Have Iridium Scaling Back Expectations for its Satellite Phone Service, THE WASH. POST, May 24, 1999 ("Early users have complained of blocked access, rampant interference and dropped calls." . . . "Cellular phones can be used inside buildings and in cities, unlike Iridium phones, which generally work only when there is open sky overhead.").

[31] See, e.g., John Breeden, A Phone for the Back of Beyond, THE WASH. POST, Jan. 4, 2001 ("The [Globalstar] phone had also worked indoors, but we found the satellite signal was not as robust as a cellular signal and could not penetrate walls or ceilings very well. The phone worked best near a window."). Also, Globalstar's automobile kits receive relatively good reception in urban areas.

problems.[32] The Bondholders believe overcoming this drawback will dramatically increase Globalstar's subscribership.

Numerous urban and suburban Americans that otherwise would greatly benefit from Globalstar's ubiquitous signal coverage nevertheless avoid satellite phones due to the inaccessibility of the satellite network in urban areas and indoors. As anyone who has traveled a significant distance by car can attest, most terrestrial networks provide inadequate coverage outside of cities, towns, and main thoroughfares and even within cities in large urban parks, like Rock Creek Park in Washington, D.C. and the Santa Monica mountains near Los Angeles, California. However, Americans that frequently travel outside of terrestrial wireless coverage also engage in at least some business activities indoors and in cities. These subscribers do not want to have to depend on separate satellite and terrestrial phones and have two mobile phone numbers. Once Globalstar is empowered to overcome the poor satellite signal quality that plagues all MSS satellite phones, Globalstar's service will be ideally suited for the millions of urban and suburban Americans that require truly seamless mobile service.

B. The Increase in Globalstar's Subscribership That Will Result From ATC Authority Will Cause a Self-Reinforcing Spiral of Lower Pricing and Further Increased Subscribership

As explained above, by enabling Globalstar to completely overcome the reception problems faced by current subscribers indoors and in urban canyons, ATC authority will expand Globalstar's target market to include many urban and suburban subscribers that might not otherwise purchase MSS services. Because of the sheer number of these potential urban and suburban subscribers, ATC authority necessarily will increase substantially the number of

[32] Globalstar's satellite phones also are capable of operating on terrestrial cellular networks where such networks are available. However, as further discussed infra, this functionality also has substantial drawbacks. For example, Globalstar subscribers are required to have different telephone numbers for the satellite and cellular services received by their phones.

Globalstar subscribers. This subscribership expansion will enable Globalstar to lower its per-minute pricing in two ways. First, Globalstar will be able to spread the approximately $4.5 billion of fixed costs spent to construct and launch its satellite system over this much larger subscriber base. Second, an increase in the number of subscribers will decrease the cost of Globalstar phones through volume wholesale discounts from equipment manufacturers.

The Commission described in the NPRM how a limited subscribership for MSS networks causes a self-reinforcing increase in the cost of providing MSS services.[33] The Bondholders believe that the converse also will hold true. New subscribers will be attracted to the lower pricing offered by Globalstar as a result of the economies of scale enabled by new subscribers attracted by better signal quality. The additional subscribers, in turn, will enable Globalstar to further drive down prices, both of Globalstar's phones and services, which will further increase subscribership and enable additional reductions in pricing. ATC authority is the key to igniting this self-reinforcing spiral of decreasing prices and increasing subscribership.

C. This Decrease in Globalstar's Prices Will Enable Rural Families That Previously Did Not Have Adequate Access to Mobile Telephony to Obtain Such Services

The lower pricing accomplished by ATC authority will make mobile telephony and data services available for the first time to many currently underserved rural Americans. In some instances, lower pricing for Globalstar's MSS services will enable very isolated households to obtain basic telephone service for the first time. The current prices of satellite phones and services place MSS out of the reach of many rural families that do not receive adequate local terrestrial wireless coverage. These families currently are unable to obtain the substantial

[33] NPRM, ¶ 24.

personal security benefits that are provided by mobile phones.[34] For many of these families, the lower pricing and equipment discounts that are likely to be offered by Globalstar following grant of ATC authority will enable them for the first time to obtain accessible mobile telephony or, in the case of the most remote location, simply obtain telephone service at all.[35]

D. ATC Authority Will Enable MSS Providers to Raise Additional Capital to Further Develop its Big LEO System

Grant by the Commission of ATC authority will increase the willingness of the capital markets to invest new capital in the MSS industry. The increased subscribership and lowering pricing structure that can be accomplished through a grant of ATC authority will make the MSS industry a much more attractive investment. Globalstar's MSS services have been commercially available for less than two years. The dearth of available capital at this early stage has been a significant obstacle impeding Globalstar's ability to increase it subscribership.

A new inflow of capital will enable Globalstar to improve and advance its products and services. Globalstar's bent-pipe platform is ideally suited to take advantage of improving telecommunications technologies.[36] Globalstar's satellites merely reflect the transmissions that

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[34] Security concerns are one of the most important factors that motivate the purchase of mobile phone service by many consumers. See, e.g., Jared Sandberg, Choosing a Cellphone When Safety Counts as Much as Service, WALL ST. J., Sept. 27, 2001.

[35] As a result of the low population density of "rural" communities, the number of individuals that will benefit from such improved access probably is dwarfed by the much larger number of urban subscribers that will benefit occasionally from ubiquitous MSS coverage when travelling outside of urban and suburban areas. Nevertheless, as the Commission has repeatedly realized that the provision of service to underserved Americans can be of greater significance when considering the public interest than providing a new competitive alternative to adequately served communities. See NPRM, ¶ 22 ("We are committed to policies promoting the provision of broadband communications services to rural, unserved and underserved areas of the country. MSS systems continue to offer the potential to achieve this goal.").

[36] For example, QUALCOMM Incorporated recently announced that it has developed a technological innovation that will enable CDMA2000, a backward compatible third generation digital wireless technology, to carry twice as much capacity as previously possible. With

they receive. Processing is accomplished at gateway earth stations. Thus, to take advantage of technological advances or to customize service offerings for large customers, Globalstar only will have to upgrade its ground stations and will not be required to modify its satellite constellation. With sufficient funding, the adaptable and evolutionary nature of Globalstar's bent-pipe system will enable Globalstar to offer in the future services that have not yet been imagined. For example, a grant of ATC authority by the Commission will facilitate Globalstar's ability to expend resources to develop new and industry-specific MSS applications. Such applications will increase the size and number of markets addressable by Globalstar and thereby further increase the public interest benefits that Globalstar can provide to the American public.[37]

In addition, this new inflow of capital initially could be used to defray the cost of handsets in order to jump start the chain reaction of decreasing prices and increasing subscribership discussed above. By lowering up front costs to subscribers, Globalstar can increase subscribership, which will, in turn, reduce unit costs, thereby further increasing subscribership. As important, familiarity with, and recognition of, Globalstar's services will increase as subscribership increases.

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additional capital, Globalstar may be able to utilize such technology to increase its spectrum-use efficiency. See Press Release, QUALCOMM Incorporated, Voice Capacity Doubling for CDMA2000, Oct. 2, 2001.

[37] Globalstar is in the process of developing satellite data services with speeds of up to 200 kbps See http://www.globalstar.com/pages/dataserv.html. With additional capital, Globalstar also could develop a second generation of smaller handsets, which the Bondholders believe would further increase its subscriber base.

IV. COMMISSION GRANT TO GLOBALSTAR OF THE MAXIMUM POSSIBLE OPERATIONAL FLEXIBILITY IS CONSISTENT WITH COMMISSION POLICY AND WILL ENSURE THE MOST EFFICIENT POSSIBLE USE OF GLOBALSTAR'S SPECTRUM ASSIGNMENTS

To ensure the most efficient and productive use of the nation's limited spectrum resources, the Commission has adopted a formal policy of providing Title III licensees with the maximum possible flexibility in use of their assigned spectrum. Grant of ATC authority to MSS providers, such as Globalstar, is fully consistent with this policy and poses no disadvantages. Following such a grant of ATC authority, Globalstar will continue to be capable of providing ubiquitous satellite coverage—the public interest benefit that is unique to MSS providers—and will not interfere with other licensees. In keeping with its policy of providing licensees with maximum possible operational flexibility, the Commission should promulgate as few operating restrictions applicable to ATC networks as possible, and instead should enable Globalstar to construct its ATC network in accordance with Globalstar's judgement regarding its customers' best interests.

A. The Commission's Longstanding Policy to Permit Spectrum Licensees the Maximum Possible Operational Flexibility Necessitates the Grant of ATC Authority to Globalstar

The Commission has established a clear policy in favor of granting maximum operational flexibility to spectrum licensees in order to enable the licensees to make the most efficient possible use of their spectrum assignments. Section 303(y) of the Communications Act of 1934, as amended (the "Act"),[38] expressly authorizes the Commission to modify spectrum allocations

[38] 47 U.S.C. § 303(y). Section 303(y) of the Act authorizes the Commission to modify spectrum allocations to provide licensees with flexible use of spectrum if doing so serves the public convenience, interest, and necessity and the following criteria are met:

(1) such use is consistent with international agreements to which the United States is a party; and
(2) the Commission finds, after notice and an opportunity for public comments, that—
(A) such allocation would be in the public interest;

to provide licensees with flexibility of use. The Commission clearly enunciated a policy of flexible spectrum use in its 1999 Reallocation Policy Statement, in which the Commission set forth the general policy considerations that would dictate its future spectrum use and allocation decisions.[39] According to the Commission:

> Flexible allocations may result in more efficient spectrum markets. Flexibility can be permitted through the use of relaxed service rules, which would allow licensees greater freedom in determining the specific services to be offered.[40]

Moreover, the Commission's pro-flexibility policy has guided the Commission's decision making in numerous recent spectrum allocations and rulemaking proceedings. This policy dictates grant of ATC authority and there is no reason for the Commission to depart from the policy in the instant proceeding.

- Instructional Television Fixed Service ("ITFS")/Multichannel Multipoint Distribution Services ("MMDS"). As further discussed below, in the Commission's ITFS/MMDS proceeding, the Commission granted incumbent ITFS and MMDS licensees new

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(B) such use would not deter investment in communications services and systems, or technology development; and
(C) such use would not result in harmful interference among users.

The instant situation satisfies each of these criteria: (i) no international agreements prevent the domestic terrestrial use of MSS spectrum and, in fact, most of the relevant 2 GHz and Big LEO spectrum already is internationally allocated for terrestrial mobile service; (ii) the NPRM provided notice and an opportunity for comment; (iii) as discussed throughout these comments, grant of ATC is in the public interest; (iv) such a grant will encourage much needed investment in MSS providers generally and, more specifically, in ATC networks; and (v) the Commission will establish appropriate ATC service rules to prevent MSS licensee's operating ATC networks from interfering with other licensees.

[39] Principles for Reallocation of Spectrum to Encourage the Development of Telecommunications Technologies for the New Millennium, Policy Statement, 14 FCC Rcd 19868, (1999) ("Reallocation Policy Statement").

[40] Reallocation Policy Statement, ¶ 9.

authority to offer mobile services using their fixed service spectrum assignments.[41] According to the Commission:

> [A]dding a mobile allocation to the [ITFS/MMDS] band will provide additional near-term and long-term flexibility without forcibly displacing incumbent operators. Relying generally on market forces rather than making regulatory judgements about the best use of the band, a more flexible allocation would, for example, allow certain portable data applications to be provided under existing service rules . . . and could provide flexibility for introducing other advanced fixed and mobile applications in the future.[42]

Thus, the Commission decided that it would not itself attempt to determine the highest, most efficient use of ITFS/MMDS spectrum. Rather, the Commission decided to provide incumbent ITFS/MMDS licensees with the authority necessary for them to make this determination as guided by the invisible hand of market forces.

- Digital Audio Radio Service ("DARS"). As recently as September 2001, the Commission granted DARS licensees special temporary authority ("STA") to operate terrestrial repeater antennae using their DARS satellite spectrum assignments to fill in urban canyons that cannot be reached directly by their broadcast satellites.[43] The Commission granted this flexible terrestrial use of the DARS providers' satellite spectrum assignment to ensure that DARS subscribers have uninterrupted access to

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[41] See Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, Including Third Generation Wireless Systems, First Report and Order and Memorandum Opinion and Order, ET Docket No. 00-258, RM-9911, FCC 01-256, ¶ 2 (rel. Sept. 24, 2001) ("ITFS/MMDS Order").

[42] Id. at ¶ 2. See also ITFS/MMDS Order, ¶ 20 ("We find that adding a mobile allocation to the 2500-2690 band will further promote the public interest by providing an additional option to service providers in the band.").

[43] See Application for Special Temporary Authority to Operate Satellite Digital Audio Radio Service Complementary Terrestrial Repeaters, DA 01-2171, File No. SAT-STA-20010724-00064 (rel. Sept. 17, 2001) ("Sirius STA") (granting STA to Sirius Satellite Radio Inc.); Application for Special Temporary Authority to Operate Satellite Digital Audio Radio Service Complementary Terrestrial Repeaters, DA 01-2172, File No. SAT-STA-20010724-00063 (rel. Sept. 17, 2001) ("XM STA") (granting STA to XM Radio Inc.).

DARS despite the inherent shortcomings of the provision of satellite services in urban settings.[44]

- Commercial Mobile Radio Service ("CMRS"). The Commission also granted CMRS providers "maximum flexibility" in the use of their already allocated spectrum.[45] Specifically, the Commission modified its CMRS service rules to allow CMRS licensees to offer fixed services on spectrum originally allocated for mobile services only. The Commission chose service flexibility to stimulate competition, and to "encourage innovation and experimentation" in the development of wireless services.[46] According to the Commission:

  > Allowing service providers to offer all types of fixed, mobile and hybrid services in response to market demand will allow for more flexible responses to consumer demand, a greater diversity of services and combinations of services, and increased competition.[47]

- New Services on Broadcast Channels. In its ongoing proceeding to transition broadcast television stations to their new digital spectrum allocation, the Commission has emphasized flexibility over rigid service restrictions when reallocating broadcasters old analog spectrum.[48] The Commission opined that its statutory spectrum management responsibilities demand flexible service rules.[49] Only flexibility "would enable the most efficient and intensive use" of spectrum and thereby increase competition and further the

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[44] In the STA proceedings, the Commission indicated its likely intention to authorize terrestrial repeaters on a permanent basis, noting that the Commission "clearly contemplated that the repeaters were to be part of the proposed satellite systems." Sirius STA at ¶ 7; XM STA at ¶ 7.

[45] Amendment of the Commission's Rules to Permit Flexible Service Offerings in the Commercial Mobile Radio Services, First Report and Order and Further Notice of Proposed Rulemaking, 11 FCC Rcd 8965, ¶ 1 (1996) ("CMRS Order").

[46] Id. at ¶ 3.

[47] Id.

[48] Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules, First Report and Order, 15 FCC Rcd 476 (2000).

[49] Id. at ¶ 4.

interests of consumers.[50] As technologies and their respective services converge, restrictive service definitions could stifle the "dynamic, evolving nature of the wireless industry."[51]

- Wireless Communications Service ("WCS"). The FCC again emphasized flexible spectrum use in its WCS proceedings.[52] In allocating the spectrum, the Commission granted licensees the "flexibility to provide . . . *any service* contained in Part 2 of the Commission's Rules."[53] Providing such flexibility, reasoned the Commission, served the public interest in several ways. For example, flexible use would encourage the "deployment of new telecommunications services and products to consumers" and would enable providers to offer customers "a mix of services and technologies."[54]

B. Commission Grant of ATC Authority to Globalstar Represents the Most Efficient Possible Use of Globalstar's Big LEO and 2 GHz Spectrum Allocations

Grant of ATC authority to Globalstar will enable Globalstar to operate an integrated ATC/MSS network. By operating such an integrated network, Globalstar will be able to use spectrum more efficiently than currently is possible from Globalstar's satellite-only MSS network. An ATC network will be able to reuse spectrum terrestrially in every city nationwide without any danger of interference and, by varying cell size, even may be able to reuse spectrum within a city several times. Thus, ATC authority probably will be able to provide the additional transmission capacity that Globalstar is likely to need in densely populated urban areas as Globalstar increases its subscribership.

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[50] Id.

[51] CMRS Order at ¶ 22.

[52] See Amendment of the Commission's Rules Part 27, to Establish the Wireless Communications Service, Report and Order, 12 FCC Rcd 10785 (1997); see also 47 C.F.R. § 27.2 (noting that a WCS licensee may "provide any service for which its frequency bands are allocated" subject to technical and other rules contained in Part 27).

[53] Id. at ¶ 2 (emphasis added).

The efficiency benefits attributable to ATC authority may not be limited to terrestrial reuse. In addition to unparalleled coverage, a unified ATC/MSS network may offer greater transmission capacity than can be accomplished with either a stand-alone MSS or ATC network. Grant of ATC authority to Globalstar will empower Globalstar to determine the most economically efficient and spectrum-efficient means of sharing spectrum between satellites and terrestrial antenna to take advantage of their individual spectrum reuse characteristics. For example, Globalstar's Big LEO MSS system is capable of reusing spectrum in its 16 spot beams. Globalstar may be able to develop a dynamic allocation of spectrum between its MSS system and ATC network in order to simultaneously reuse spectrum in multiple spot beams while reusing the same spectrum terrestrially in numerous cities that do not fall within these spot beams.[55] Thus, a grant of ATC authority is consistent with the Commission's policy, discussed above, to provide licensees with the operational flexibility to most efficiently use their assigned spectrum.

C. Grant of ATC Authority to Globalstar is a "Win-Win" Proposition

Grant of ATC authority to Globalstar by the Commission is a "win-win" proposition which will not in any way adversely affect the public or the ability of other licensees to utilize their spectrum assignments. ATC authority will in no way reduce the ubiquitous coverage that MSS providers are uniquely equipped to provide, which coverage is the hallmark of the MSS

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[54] Id. at ¶ 26.

[55] Dynamic spectrum management technology does not yet exist. Therefore, the exact manner in which Globalstar's 2 GHz MSS system will share spectrum between its component satellite and terrestrial platforms has not yet been determined. Ultimately, however, Globalstar will not invest resources to develop dynamic spectrum management and reuse technologies unless Globalstar controls the ATC networks operated using Globalstar's MSS spectrum assignments. It is highly unlikely that independent MSS and ATC licensees can accomplish the extensive technological coordination that would be required to fully implement their networks.

industry. Further, assuming the Commission develops appropriate technical and service rules for ATC, Globalstar's operation of an ATC network will not hamper the use of any other licensee's assigned spectrum.

In keeping with the Commission's flexible deployment policy, the Bondholders believe that only very narrowly-tailored regulation of ATC authority is warranted. The Commission only should adopt regulations that are necessary to assure that the public receives the full complement of public interest benefits inherent to MSS systems without any party suffering adverse consequences. Specifically, the Commission should promulgate rules: (i) to ensure that MSS licensees' use of their ancillary ATC authority in no way undermines their provision of their primary satellite service; and (ii) that prevent interference between ATC networks and MSS satellite networks or other wireless licensees. Beyond these considerations, the Commission should permit the market to determine how MSS providers implement their ATC platforms to the greatest extent possible. Market forces are more likely than regulatory intervention to cause MSS providers, such as Globalstar, to use their ATC authority most efficiently and cost-effectively and thereby in the manner that best promotes the public interest.

1. By requiring MSS licensees to satisfy their MSS coverage requirements prior to authorizing ATC authority, the Commission can ensure that ATC networks remain ancillary to MSS

First, the Commission only should grant ATC authority to MSS licensees that are capable of meeting applicable MSS coverage requirements. This will ensure that ATC networks remain ancillary to MSS licensees' MSS networks. The public interest benefits that are provided by MSS licensees flow from the ubiquitous telecommunications services that only can be provided by an MSS satellite network.[56] By requiring licensees to satisfy their coverage requirements

[56] In fact, ATC authority will enable Globalstar to satisfy fully the spirit of the Commission's MSS coverage requirement. 47 C.F.R. § 25.143 (b)(2) (requiring that system be capable of

prior to offering ATC services, the Commission can prevent ATC platforms from undermining the public interest benefits attributable to the MSS satellite constellations which ATC is intended to augment. This should be the Commission's sole concern with respect to MSS/ATC network coverage, and the Commission should not attempt to further dictate whether individual calls are carried via ATC or satellite.

The Bondholders oppose any rule designating a minimum or maximum percentage or quantity of minutes or frequency channels that must be designated for satellite or ATC services. The vast majority of Americans live in or near urban areas. Thus, because ATC likely will be used by Globalstar's subscribers primarily in urban areas, both to improve signal strength and to accomplish efficiency through spectrum reuse, a significant portion of the total traffic carried by Globalstar may be carried on its ATC platform. Any limitation preventing such reliance on ATC platforms in urban areas would undercut dramatically the benefit of ATC authority to the public and to Globalstar. Further, the Commission should not limit the use of ATC authority to urban areas. There is no public interest justification for doing so and permitting ATC in more rural areas is necessary to enable rural customers to receive calls indoors and to obtain spectrum efficiency benefits from cellular-type spectrum reuse.

If the Commission believes that additional ATC limitations are necessary to ensure that ATC remains ancillary to MSS, which the Bondholders do not, the Bondholders believe that

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providing services "throughout the fifty states, Puerto Rico and the U.S. Virgin Islands" and to "all locations as far north as 70° latitude and as far south as 55° latitude"). Without access to the interior of buildings and to city streets, even while complying with the FCC's geographical and temporal coverage rules, Globalstar nevertheless is unable to provide truly ubiquitous service to the majority of Americans. Clearly, the purpose of the Commission's MSS coverage requirement was not to require that each licensee's satellite signal blanket the entire United States, but instead to ensure that MSS providers are able to provide telecommunications service to all Americans all of the time. No MSS provider can fulfill the spirit of the requirement without ATC authority.

requiring all user terminals to be capable of operating using the licensee's satellite platform is fully consistent with enforcement of the Commission's satellite coverage requirement. Further, the Bondholders believe that a Commission-imposed requirement that MSS licensees not provide any services via the ATC platform that they are not also capable of providing via satellite is consistent with the Commission's proposed definition of the term "ancillary."[57]

2. The Commission should promulgate rules to prevent ATC networks from interfering with other licensees, including MSS licensees

The Commission should establish rules that the Commission determines to be reasonably necessary to prevent interference between MSS licensees' ATC platforms and terrestrial or satellite licensees that either share spectrum with MSS providers or that operate in adjacent bands. With respect to out-of-band interference, these rules should both protect other licensees against interference from ATC networks and protect ATC networks against interference from adjacent licensees. In-band, ATC should be required to be provided on a secondary basis so as not to interfere with the provision of MSS services by other licensees. The Bondholders believe that interference prevention restrictions should be sufficiently flexible to allow privately negotiated resolution of potential interference problems, rather than mandating a certain method of resolving any such situations that occur.

3. The Commission should refrain, to the greatest extent possible, from adopting other technical and service rules so as to ensure MSS licensees maximum operational flexibility

With respect to other technical and service rules proposed by the Commission, the Bondholders encourage the Commission to offer MSS licensees, such as Globalstar, the most

[57] In seeking comment on what, if any, restrictions the Commission should place on ATC authority to ensure that it remains ancillary to MSS, the Commission noted that it does not intend the term to "refer to services that differ materially in nature or character from the principal services offered by MSS providers." NPRM, ¶ 30.

flexibility possible so as not effectively to repress innovation by the licensees. The Bondholders are unaware of any instance worldwide in which a satellite provider is operating an integrated ATC/satellite telecommunications system with dynamic spectrum assignment. Therefore, it may not be possible to anticipate now, before any such system has been developed and is operating, what technical characteristics such a system would possess. In order to avoid artificially limiting Globalstar's options and thereby potentially preventing new and innovative spectrum use and coordination techniques, the Commission should only adopt rules necessary either to prevent interference or to assure that MSS licensees do not permit their ATC platforms to undermine the ubiquitous availability of satellite platforms.

V. THE COMMISSION SHOULD NOT LICENSE ATC AUTHORITY TO NON-MSS LICENSEES

None of the public interest benefits discussed above are likely to be realized by the public if the Commission assigns ATC authority to non-MSS licensees. If the Commission assigns authority to use MSS spectrum to provide terrestrial services to independent entities, either in conjunction with MSS licensees or as an alternative mobile service, all of the advantages of ATC authority to MSS licensees are likely to be lost and the continued viability of MSS will be left in question.

A. Grant of ATC Authority to Non-MSS Licensees is Inconsistent With the Premise of the NPRM

Assigning rights to provide terrestrial services using Globalstar's MSS spectrum assignments to entities that are not under Globalstar's direct control, would undermine the entire premise of the NPRM. The Commission stresses throughout the NPRM that the purpose underlying the adoption of the NPRM is to examine means of assisting MSS licensees fully to

realize their potential to serve the public interest by providing the licensees with additional operational flexibility. According to the Commission:

> We believe that the potential long-term benefits of MSS merit consideration of approaches to achieve flexibility in the delivery of communications by MSS operators. Flexibility has been the Commission's favored approach to spectrum management and licensing in recent years.[58]

Opening ATC authority to competitive bidding by independent entities would not increase Globalstar's operational flexibility in any way and would not increase Globalstar's financial viability. By contrast, as discussed above, a grant of ATC authority to Globalstar will provide Globalstar with numerous advantages, which will strongly bolster Globalstar's ability to serve the public interest.

B. If the Commission Grants ATC Authority to Non-MSS Licensees, MSS Licensees Will Not Receive Any Significant Benefits From ATC Authority

1. Grant of ATC authority to independent entities will result in an unacceptable loss of spectrum by incumbent MSS licensees and will not accomplish any spectrum-use efficiencies

Globalstar most likely would lose access to the portions of its Big LEO and 2 GHz spectrum assignments that are used by a separately controlled winning ATC bidder. Band sharing between entities that are not jointly controlled probably is not feasible and thus it is likely that Globalstar and an independent ATC licensee would have to split Globalstar's MSS spectrum assignments in some manner. The level of facilities integration and spectrum-use coordination that would be needed to integrate separately controlled ATC and MSS networks simply will not occur between two independent licensees whose interests may not be aligned. As a result, MSS spectrum used by an ATC licensee effectively will be unavailable to the MSS

[58] NPRM, ¶ 2.

licensee to which the spectrum originally was assigned. To avoid interference between an MSS satellite system and an independently controlled ATC network authorized to operate in the MSS provider's spectrum assignment, the MSS provider's spectrum probably would have to be split into separate ATC and MSS channels. Therefore, any grant by the Commission of ATC authority to an independent entity will, in reality, merely be a reduction of the amount of spectrum available for Globalstar to operate its satellite system.[59]

2. Globalstar's experience using dual-band phones has demonstrated the operational problems caused by attempting to integrate separately controlled terrestrial and MSS networks

Mere access to an ATC network controlled by an independent licensee, rather than actual control of a fully integrated ATC network, can be accomplished now by MSS providers, such as Globalstar, through commercial arrangements with terrestrial wireless providers. However, Globalstar's experience with dual-mode cellular and MSS telephones demonstrates that such arrangements are not optimum. Globalstar has no control over the service quality, pricing, or billing practices of the cellular providers that operate the terrestrial networks serving Globalstar's subscribers. In addition, Globalstar's customers must use two different phone numbers for their dual-band phones—a satellite number and a cellular number—and must manually switch between the two bands. Contrary to customer demand, this dual satellite and cellular capability makes the phones somewhat larger because of the need for redundant circuitry to operate in two

[59] This would amount to an unwarranted and unprecedented reassignment of licensed spectrum—Big LEO spectrum that currently is being utilized by Globalstar or 2 GHz spectrum that Globalstar has not yet had an opportunity to launch a satellite system to deploy. In those few instances where the Commission has unilaterally reassigned spectrum in this manner, Commission relocation policies have required the Commission to identify appropriate replacement spectrum and to require the new licensee to pay for the relocation of the incumbent licensee. See, e.g., 2 GHz Relocation Order (requiring 2 GHz MSS licensees to relocate various types of terrestrial incumbent 2 GHz licensees); Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies, First Report and Order and Third Notice of Proposed Rulemaking, 7 FCC Rcd 6886 (1992) (requiring new PCS licensees in the 1.85 to 2.20 GHz band to relocate incumbent fixed microwave licensees from this band).

different spectrum bands. Also, to the chagrin of many customers, customers receive separate bills for the cellular and satellite components of the service.

Further, Globalstar's service providers individually are required to negotiate roaming agreements with numerous cellular operators.[60] Thus, the availability and pricing of cellular service to Globalstar's subscribers is dependent on the location of the customer, the identity of the Globalstar service provider that serves the customer, and the terms of the arrangement between the applicable cellular provider and Globalstar service provider. Finally, if Globalstar's service providers or other terrestrial wireless providers perceive Globalstar's service to be in competition with their terrestrial networks, the terrestrial providers may hamper, rather than facilitate, the provision of services to Globalstar's subscribers.

3. The capital markets will not provide additional capital to MSS licensees if the Commission grants ATC authority to non-MSS licensees

Granting ATC authority to non-MS licensees will not increase the MSS industry's access to capital. As discussed above, MSS providers are unlikely to obtain any significant benefits from a grant of ATC authority by the Commission to non-MSS licensees. In fact, MSS licensees would be prejudiced by such a grant in that they probably would lose access to a portion of their current spectrum assignments. As a result, the capital markets will not perceive the MSS industry to be a more attractive investment opportunity. Therefore, not only will Globalstar be unable to improve and expand its current service offerings, but its ability to launch a second generation satellite constellation, and thus its future viability, will be in question. All of the

[60] End user service to Globalstar subscribers currently is provided by 26 service providers worldwide. The service providers operate gateway earth stations and many of the service providers also operate local terrestrial networks. The service providers are responsible for independently arranging the cellular component of the Globalstar services that the service providers market to end users.

public interest benefits of Globalstar's existing Big LEO System could be lost when Globalstar's first generation of satellites expires.

C. Commission precedent calls for the Commission only to provide ATC authority to MSS licensees rather than encumbering their ability to provide MSS services

Consistent with the grant of ATC authority solely to MSS licensees, the Commission recently decided not to require incumbent ITFS and MMDS licensees to share their spectrum with MSS providers.[61] In doing so, the Commission was resolving a spectrum use conflict that is similar to the situation faced by the Commission in the instant proceeding.

In the ITFS/MMDS proceeding, the Commission denied a request by the Satellite Industry Association ("SIA") to co-allocate ITFS/MMDS spectrum for MSS.[62] The Commission determined that the mobile services that would be offered by MSS providers could interfere with existing fixed services offered by ITFS and MMDS licensees. The Commission recognized the need to allocate additional spectrum for the provision of mobile third generation ("3G") services, including integrated voice and broadband data services. Rather than disrupt the incumbent licensees, however, the Commission opted to provide the licensees with the necessary operational flexibility to enable them to fulfill the anticipated need for 3G service.[63]

According to the Commission:

> [I]t is reasonable for [the Commission] to conclude that, on balance, although incumbent [ITFS and MMDS licensees] may enjoy some benefits by adding a mobile allocation to the band, permitting mobile use of the band by new service

[61] ITFS/MMDS Order.

[62] ITFS/MMDS Order, ¶ 3 (denying SIA's petition for reconsideration of an earlier Commission order refusing to reallocate ITFS/MMDS spectrum for MSS).

[63] Prior to the issuance of the ITFS/MMDS Order, ITFS and MMDS licensees only were authorized to offer terrestrial fixed services.

> providers would pose a very high risk of disrupting important incumbent fixed operations that our decision does not pose.[64]

Further, the Commission stated:

> While we find that adding a mobile allocation in the [ITFS/MMDS band] would be in the public interest, we find that relocating incumbent ITFS/MMDS operations would jeopardize the provision of important fixed wireless broadband services.[65]

Thus, the Commission decided against permitting new licensees to satisfy the anticipated demand for 3G mobile services using ITFS and MMDS spectrum. Instead, the Commission decided to authorize incumbent ITFS and MMDS licensees to fill this role so as not to disrupt existing and planned ITFS and MMDS operations.

The policy rationale used by the Commission in its ITFS/MMDS Orders is equally applicable to the instant proceeding. In the instant proceeding, the Commission is considering whether to require incumbent licensees to: (i) relinquish primary rights to a portion of their spectrum assignments to ATC licensees; or (ii) expand the operational authority of the incumbent licensees to enable the incumbents to operate integrated ATC/MSS networks.[66] In addition, as with the ITFS/MMDS proceeding, in the instant proceeding, both of the proposed alternative uses of the spectrum in question will fulfill similar, anticipated future

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[64] ITFS/MMDS Order, ¶ 27.

[65] Id. at ¶ 28.

[66] The Commission granted ITFS and MMDS licensees mobile authority even though the technology necessary to enable incumbent ITFS/MMDS licensees to provide both mobile and fixed services in their spectrum assignments does not yet exist. See ITFS/MMDS Order, ¶ 30 ("We recognize that, under current technology and service rules, fixed and mobile (other than portable) sharing of the [ITFS/MMDS band] does not appear feasible, but we anticipate advances in technology that may permit such sharing."). Similarly, fully integrated ATC/MSS networks have not yet been developed. Nevertheless, under the ITFS/MMDS proceeding precedent, the Commission should provide incumbent MSS licensees with an opportunity to develop such integrated networks in order to fully realize the spectrum efficiencies that such systems can offer.

telecommunications needs. Further, just as MSS providers had the potential to disrupt existing and planned ITFS/MMDS operations, in the instant proceeding, independent ATC licensees could disrupt existing and planned MSS services offered by the MSS providers with which the ATC licensees share spectrum. Thus, under the policy precedent established by the Commission in the ITFS/MMDS Order, the Commission should grant ATC authority solely to incumbent MSS licensees in this proceeding. The ITFS/MMDS Order clearly favors expanding the operational authority of incumbent licensees rather than requiring incumbents to share or relinquish primary rights to a portion of their spectrum assignments.

VI. CONCLUSION

For the reasons set forth herein, the Commission should expeditiously grant ATC authority to MSS providers. Such grant poses numerous public interest benefits and poses no disadvantages. ATC will improve Globalstar's MSS service offerings in urban and indoor settings, will enable Globalstar to increase subscribership and lower prices, and will facilitate sorely needed new capital investments in Globalstar and the rest of the MSS industry. Moreover, ATC will not cause any reduction whatsoever in the service capabilities of Globalstar. To the contrary, Globalstar will be able to serve more users in more places. Also, with Commission adoption of appropriate interference protections, ATC will not interfere in any way with any in-band or adjacent-band licensee's use of their spectrum. Rural Americans and numerous industries and local, state, and federal government personnel will benefit extraordinarily from a Commission grant of ATC authority to MSS licensees and no party will suffer detriment.

Respectfully Submitted,

UNOFFICIAL BONDHOLDERS COMMITTEE
OF GLOBALSTAR, L.P.

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